

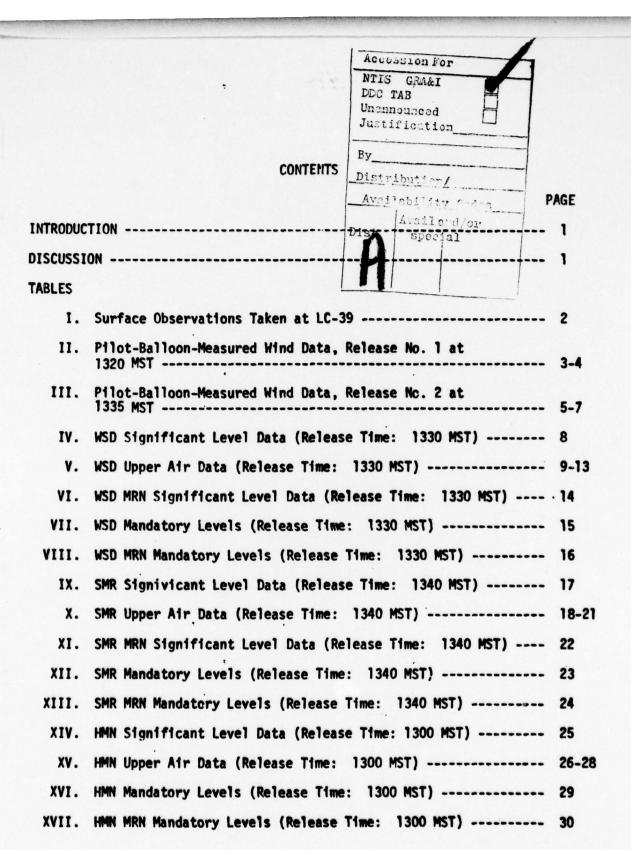
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SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered) READ INSTRUCTIONS
BEFORE COMPLETING FORM REPORT DOCUMENTATION PAGE 14818C Lance Missile No. 4355 Number 4355 Round Na 329 APT 6. PERFORMING ORG. REPORT NUMBER . AUTHOR(e) 8. CONTRACT OR GRANT NUMBER(+) Number WSMR Meteorological Team 1T6657-20126-02 9. PERFORMING ORGANIZATION NAME AND ADDRESS 10. PROGRAM ELEMENT, PROJECT, TASK 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Comd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico
14. MONITORING AGENCY NAME & ADDRESS(It ditterent from Controlling Office) 15. SECURITY CLASS. (of this report) US Army Electronics Research & Development Comd LINCLASSIFIED

15a. DECLASSIFICATION/DOWNGRADING
SCHEDULE 16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of the ebetract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Ballistics 2. Meteorology 3. Wind 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 14818C Lance, Missile Number 4355, Round Number. 329 APT, are presented in tabular form. 410 663 DD FORM 1473 EDITION OF 1 NOV 65 IS OBSOLETE UNCLASSIFIED

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INTRODUCTION

14818C Lance, Missile Number 4355, Round Number 329 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1330 MST, 25 April 1979. The scheduled launch time was 1330 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

- a. Surface. Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3) , wind direction and speed, and cloud cover were made at the LC-39 Met Site at T-0 minutes.
 - b. Upper Air
- (1) Low level wind data were obtained from RAPTS T-9 pibal observations at:

SITE AND ALTITUDE

LC-36 7,000 feet 1320 MST LC-36 12,000 feet 1335 MST

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to balloon burst in 500-feet increments.

SITE AND TIME

WSD 1330 MST HMN 1300 MST SMR 1340 MST The data are presented in the following tabulations:

TABLEC Lance, Missile Humber 4355, Round Humber 129 APT, was launched from LC-19, White Sands Missile Range (WSMR), New Mexico, at 1330 MST, 25 April 1919. The scheduled launch time was 1330 MST.

ELEVATION	4064	FT/MSL
PRESSURE	872.7	MBS
TEMPERATURE	28.9	° C
RELATIVE HUMIDITY	est 14 lb lmid av	sia z "(21)
DEW POINT	-1.5	°C
DENSITY	1002	GM/M ³
WIND SPEED	ow a 06 bather few f	MPH
WIND DIRECTION	330	DEGREES
CLOUD COVER	1	Cu
CLOUD COVER	1-36 12,0004feet	Cs

TABLE I. SURFACE OBSERVATIONS TAKEN AT 1330 LOCAL TIME, 25 April 1979 AT LC-39, 14818C LANCE, MISSILE NO. 4355, ROUND NO. 329 APT.

OD Number and Name 14818C Lance

Missile Number 4355 Round 329 APT

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
SUR	330	6.0
100	310	5.0
200	285	3.0
300	260	3.0
400	240	2.0
500	245	3.5
600	250	5.0
700	260	6.5
800	260	7.5
900	265	. 8.0
1000	260	8.5
1100	260	9.0
1200	260	9.5
1300	265	11.0
1400	270	12.0
1500	275	13.0
1600	280	14.0
1700	285	14.0
1300	295	13.5
1900	300	.13.0
2000	305	12.5

HEIGHT (Feet)	DIFFCTION (Degrees)	SPEED (!*P!!)
2100	305	12.5
2200	300	12.5
2300	300	12.5
2400	295	12.5
2507	295	13.0
2000	295	13.5
2700	300	14.0
2000	300	14.0
2900	295	14.5
3000	295	14.5
3100	290	14.5
3200	285	14.5
3300	285	14.5
3400	285	14.5
3599	285	14.5
3000	285	14.5
3700	280	14.0
3000	275	13.0
3900	275	12.5
4000	270	11.5
4100	270	11.5

TABLE II . PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-36 , AT 1320 LOCAL TIME, 25 April 1979 .

PIRAL RELEASE POINT WSTM COORDINATES X = 502,452.98 Y = 190,654.50 Z = 4043.49

APPROXIMATELY: 2 1/2 MILES West OF LAUNCHER

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
4200	270	11.5
4300	270	11.5
4400	270	11.0
4500	270	11.5
4600	265	11.5
4700	265	11.5
4800	265	11.5
4900	265	12.0
5000	265	12.5
5100	265	13.0
5200	265	13.5
5300	260	14.5
5400	260	15.0
5500	260	16.0
5600	260	16.5
5700	260	18.0
5800	260	19.0
5900	260	20.0
6000	260	21.0
6100	260	21.0
6200	260	21.0
C300	260	21.0
6400	260	21.0
6500	265	21.5

(Feet)	DIRECTION (Degrees)	SPEED (MPH)
6600	270	22.0
6700	275	25.0
6000	280	23.0
6900	280	24.0
7000	285	25.0
7100		
7200		
7300		
7400		
7500		
7600		
7700		
7800		
7900		
8000		
8100		1886
8200		
8300	1	
8400		
8500	100	
8600		
8700	1 (1)142/131	12000
8300		
3900		

TABLE II . (Cont)

MOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH (FIRING AZIMUTE OF TRUE NORTH)

OP Number and Name 14818C Lance

"issile Number 4355 Round 329 APT

(Feet)	DIPECTION (Degrees)	SPEED (MPH)
SUR	330	6.0 .
100	318	6.0
200	305	6.0
300	293	6.0
400	280	6.0
500	272	. 8.0
600	263	9.5
700	254	11.0
200	245	12.5
900	246	13.0
1000	246	13.0
1100	247	13.0
1200	247	13.0
1300	252	14.0
1400	256	15.0
1500	260	16.0
1600	264	17.0
1700	266	18.0
1300	268	18.5
1900	270	19.5
2000	271	20.0

(Feet)	DIPICTION (Degrees)	SPEED ("P!!)
2100	270	19.5
2200	269	18.5
2300	268	18.0
2400	267	17.0
2500	266	16.5
2000	265	16.0
2700	264	15.5
2000	263	15.0
2900	262	15.0
2000	260	14.5
3100	258	14.0
3200	256	13.5
2300	256	14.0
2400	256	14.5
3500	256	15.0
3 000	255	15.0
3700	254	14.0
3000	253	13.0
3900	252	12.0
4000	250	10.5
4100	254	10.5

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-36, AT 1335 LOCAL TIME, 25 April 1979.

PIBAL RELEASE POINT WSTM COORDINATES
X = 502,452.98 Y = 190,654.50 Z = 4043.49

APPROXIMATELY: 2 1/2 MILES West OF LAUNCHER

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
4200	258	10.5
4300	262	10.5
4400	266	10.5
4500	272	11.0
4600	277	11.5
4700	282	12.0
4800	287	12.5
4900	291	10.5
5000	295	8.5
5100	299	6.5
5200	302	4.5
5300	307	5.0
5400	312	5.0
5500	317	. 5.0
5600	322	5.0
5700	323	5.5
5800	323	6.0
5900	323	6.5
6000	323	7.0
6100	315	8.0
6200	306	9.0
C300	297	10.0
6400	288	11.0
6500	292	10.0

(Feet)	DIRECTION (Degrees)	SPEED (MPH)
6600	296	9.0
6700	300	8.0
6800	303	7.0
6900	307	8.0
7000	310	8.5
7100	313	9.5
7200	316	10.0
7300	307	22.0
7400	297	33.5
7500	288	45.0
7600	278	56.5
7700	284	45.0
7 800	289	33.0
7 900	294	21.0
8000	299	9.0
8100	299	10.0
8200	299	11.0
8300	299	12.0
8400	299	12.5
8500	296	15.5
0000	292	18.0
8 7 00	288	20.5
ይያርር	284	23.0
3900	281	27.0

TAPLE III . (Cont)

WOTE: WIND PIRECTION DATA ARE REFERENCED TRUE NORTH (FIRING AZIBUTH OF TRUE NORTH)

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
9000	278	31.0
9100	275	35.0
9200	271	38.5
9300	271	38.5
9400	271	38.5
9500	271	38.5
9600	271	38.0
9700	272	37.5
9800	272	37.0
9900	273	36.5
10000	273	36.0
10100	273	36.0
10200	272	36.0
10300	272	36.0
10400	271	35.5
10500	271	34.5
10600	271	33.0
10700	271	31.5
10800	270	30.0
10900	271	30.0
11000	272	30.0
11100	273	30.0
11200	273	30.0
11300	274 .	30.0

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
11400	275	30.0
11500	276	30.0
11600	276	29.5
11700	277	29.0
11800	277	28.0
11900	277	27.5
12000	277	26.5
12100		
12200		
12300		
12400		
12500		
12600	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
12700		
12800	er o s ned d	
12900		
13000		
13100		1
13200		
13300		
13400		
13500		
13600		
13700		

TABLE III . (Cont)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH (Firing Azimuth or True North)

STATE OF THE PROPERTY WAS	11
25 APR. 79 1330 HRS MST	LIHM

GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON DEG

	HUM.					
đ	ER.	100 D H 01	24 24 24 24 24 24 24 24 24 24 24 24 24 2			
DATA	πσα					
EVEL 186 NDS	E INT		001400000	•		99,89
N7 L 0020 E SA	RATURE DEWPO CENTIO	110,010	13072	9	. 883	
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St.	GESMETRIC ALTITUDE MSL FEET	3989 6279 8253 0281	1123.05.6 1123.02.4 1123.02.4 11662.37.1 1912.5.0 23773.2 24658.4	2421 5550 5560 0281 3733 6114	20000000000000000000000000000000000000	2000 2000 2000 2000 2000 2000 2000 200
FEET M	PRESSURE MILLIBARS	0000000	50000000000000000000000000000000000000	4000004	4400000	N 0000 to
3989.00 1330 1	# E		00000			

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(Fighe Azimeth or Irug North)

UPPER 1150 ALTITUDE 3989.00 FEET MSL 1150 1150 ASCENSION NO. 188

UPPER AIR DATA 1150020156 WHITE SANDS

GEODETIC COONDINATES 32.40043 LAT DEG 106.37033 LON DEG

SH	PRESSURE	TEMF	PERATURE	REL . HUM.	SITY	SPEED OF	WIND DA	i	INDEX
MSL FEET	MILLIBARS	3	EGREES CENTIGHADE	TENCEN	METER	KNOTS	DEGKEES (TIV) K	KNOTS	REFRACTION
•	87	28.8	-1.3	14.0	1008.1	677		8.0	1.000248
•	875.	28.7		14.1	1007.9				1.000248
•	860.	26.1	-1.3	16.4	2.666	449			.0002
:	845.	23.9		18.1	989.4	674.	•		1.000244
•	831.	22.6	-2.6	18.5	976.7	670.7	260.9	10.9	1.000240
•	816.	21.2	-3.4	18.8	964.1				-0002
:	802.	19.9	-4.1	16.4		. 667.0			1.000232
7000-0	788.	19.4	9.4-	20.5	939.8	9	273.5	13.0	1.000229
:	774.	16.9	-5.2	21.5	•	664.2			1,000225
:	. 760.	15.4		22.5		.799	276.7		
:	746.	14.0	-6.5	24.0	÷	660.4	279.4	13.5	1.000219
÷	733.	15.6		25.9		9			1.000216
:	720.	11.2		27.9		657.	284.7	12.4	1.000214
:	707	8.6		59.6		655.			.00021
:	• 469	8.4	-7.6	31.4	857.6	654	283.9	17.7	1.000208
÷	681.	7.4	-8.5	32.0		653	281.1		
11500.0	699	6.9	-8-7	32.0	831.0	657.5	277.6	23.7	1.000200
12000	020	5.5	6	32.0		650	•		•
:	• 550	4.6	-	31.0		649			1.000193
:	632.	4.2	'n	29.5	793.8	649			
:	621.	2.9		29.8		249	260.1		œ
:	609		-13.9	30.4	771.8			28.7	ac.
:	598	.3	t.	31.1.		519	9.907		1.000179
:	545.		ů	32.5	750.3		207.4		1.000177
:	575.	-2.4	9	33.9		.149	268.0		-
:	264	-3.7	•	35.3		639.			.00017
:	553		•	33.5			278.2		1.000168
:	543			33.6		637.	283.0		1.000165
:	535.	9.9-	-19.7	34.4			290.5	•	•
•	522.		0	35.2		634.	295.1		
•	512.		:	36.0	675.2	633.	296-1	24.0	1.000156
0006	505	-10.5		36.8			5967		1.000154
200	492.	-11.5	i	37.0		£30.		•	1.000151
.000	485.	-12.2	-23.8	37.0		659.	294.3		.00014
00	473.	:		37.0		624.		•	#
.000	404	-14.1		37.0	623.5	627.	292.3		.00014
200	+2+	-15.0		37.0	13.	9	4.602		1.000141
000	445.	-16.0		37.0	0	624.	87.		.00013
22500.0	430.	-17.1	-28.3	37.0	294.0		280.3	38.5	1.000138
000	428.	-18.2		37.0	64.	124.	87.		.0001

11500	OO FEET MSL	_
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32.40043 LAI	002018a	GEODETIC COOKDIN
	E SANDS	32.40043 LAI

)ETIC COOKDINATES 32.40043 LAT DEG 106.37033 LON DEG	INDEX OF REFRACTION	21000		00012	00012	.00012	1.000119	-	-	-		0	1.000107	0	1.000104	100	100	1.000098		1.000095	1.000094	100	60000	1.000089	00000	1.000086	80000	00000	00000	1.000000	1.000078	•	1.000075	•	1.000073	•		1.000069	1.000067	1.000066	.00006
GEODETIC 32.4 106.3	SPEED KNOTS	78.	18.0	41.3		45.9						9.94	47.3	•	52.6	57.7			•	58.9		•		•		6	9.07	i	75.2	:	ċ	;	6	92.	101.1	. 40	9	9	103.7	-	8
	VIND DAT	27.	286.4	285.4	-	284.5	284.0	284.8			287.2	289.8	293.1	294.2	9.462	292.3	290.3	289.8	289.8	291.4	293.2	295.2	290.0	597.5	298.2	297.4	296.6	295.5	504.4	583.9	293.9	294.1	294.4	294.8	295.2	295.5	295.7	ċ	296.1	ė	
80 V	SPEED OF SOUND KNOTS			619.0	7		615.1			610.9		608.2	6009	605.4	0.409	602.6	601.2	599.8	594.2	596.5	294.8	595.1	591.3	589.6	587.8	586.1	584.0	583.2	581.6	580.4	579.0	577.6	576.3	574.9	573.5	572.1	570.0	569.1		566.2	264.7
UPPER AIR DATA 1150020160 WHITE SANDS	DENSITY S GW/CUBIC METER			555.6	546.1	537.1								-	462.2			439.8		•				396.1	-							-		2	200	319.6,	-	-	301.8	290.0	290.4
1000	REL . HUM. PERCENT	47.0	45.7	32.9	31.8	31.5	31.2	30.9	30.6	30.3	30.0	29.7	59.4	29.1	28.9	28.6			à	7.3	2.8	*	*/.	*		.2**															
EET MSL S MST	ERATURE DEWPOINT CENTIGKADE	30.		32	+		-36.2	•		•	-40.5	-41.5	-42.6	-43.7		-45.8	6.94-			-20.5		-56.1		63.	ø																
1330 HRS MIS	TEMPI AIR DEGREES			-20.8		-22.9	÷	-25.1		-27.3	-28.4	-29.5	-30.6	-31.7	-32.8	-33.9	-35.0	S	-37.4	-38.7	-40.1	-41.4	-45.8	144.1	145.5	240.0	6-24-	7	1-06-	-51.2	-52.3	253.5	-54.5	122.4	-26.4	-57.5	-58.6	-29.7	-60.8	-61.9	-63.1
ritube 3	PRESSURE MILLIBARS				394.3	380.0	377.9	370.6	362.2	354.6	347.2	339.9	332.8	325.8	319.0	3,2.3	305.7	299.3	292.8	266.4	280.0	273.8	267.1	261.7	255.9	7.007	244.0	238.9	6000	1.822	222.8	21/10	212.5	20102	202.1	197.9	193.1	ò	•	6	'n
STATION AL 25 APR. 79 ASCENSION	GEOMETRIC ALTITUCE MSL FEET	_	24000	0	25000.0	0	2600000	$\boldsymbol{\circ}$	27000.0		28000.0	24500.0	2900000	29500.0					32000		23000			34500.0												0	000	1200	2000	0	3000

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA	1150020186	WHITE SANDS	
	STATION ALTITUDE 3989.00 FEET MSL	25 APR. 79 1330 HRS MST	ASCENSION NO. 188

GEODETIC COOKDINATES 32.40043 LAT DEG 106.37033 LON DEG

UPPER AIR DATA	1150020186	WHITE SANUS	
	STATION ALIITUDE 3989.00 FEET MSL	25 APR. 79 1330 HRS MST	ASCENSION NO. 128

GEODETIC COOKDINATES 32.40043 LAT DEG 106.37033 LON DEG

RIC	PRESSURE	TEM	TEMPERATURE	REL.HUM.	DENSITY	SPEED OF	WIND DATA	TA	INDEX
ALTITUDE MSL FEET	MILLIBARS	DEGREES	DEWPOINT CENTIGRADE	PERCENT	GM/CUBIC WETER	SOUND	DIRECTION DEGREES(TM)	SPEED	OF REFRACTION
03500.0		-59.1			103-4			12.2	1.000023
		-59.9			101.3	568.	257.7		1.000023
0	60.5	60.7			99.5			2.0	1.000022
		6.09-			6.96		118.3	5.0	1.000022
		4.09-			t. 16		91.0	3.5	1.000021
		6.65-			92.0		0.6	3.3	1.000020
		-59.5			89.68		335.0	7.6	1.000020
		-59.0			87.2		323.7	13.5	1.000019
	52.	-58.6			85.0		19.	19.1	1.000019
		-58.1			85.8		321.2	18.1	1.000018
		7-57-7			60.6		322.9	17.2	1.000018
		-57.3			76.6		327.1	14.3	1.000018
		-57.0			76.7	572.7	335.0	10.8	1.000017
		-56.7			. 4	573.2	345.5	8.3	1.000017
		-56.4			72.5	575.6	353.7	7.1	1.000016
		-56.0			71.1	574.0	8.4	6.1	1.000016
		-55.7			4.69		13.6	5.7	
		-55.4,			9.19	6.476	23.5	5.4	1.000015
		-55.0			66.0	575.3	36.0	5.4	1.000015
	40.3	-24.7			64.3		49.2	5.8	1.000014
		-54.4			62.7		9.69	5.8	1.000014
		-54.1			61.2		73.8	5.4	1.000014
		-53.7			29.7	577.1	69.7	5.3	1.000013
		-53.4			54.2	577.5	109.4	4.8	1.000013
		-53.1			50.0	577.9	130.3	5.0	1.000013
		-52.7			55.3	578.4	134.5	5.2	1.000012
		-52.4			24.0	576.6	128.5	5.3	1.000012
		-52.1			52.6	5.615	121.8	5.4	1.000012
		-51.8			51.3	579.7	106.3	5.7	1.000011
		-51.4			50.1	580.1	92.9	6.3	1.000011
		-51.1			43.6		84.5	6.5	1.000011
		-50.8			47.6	580,9	77.9	6.5	1.000011
		-20.2			40.5	561.4	71.4	6.5	1.000010
		-50.1			45.3		67.1	6.3	1.000010
	-	σ			7.44	584.4	62.4	6.1	1.000010
	-	-49.5			40.5	564.7	59.1	5.6	1.000010
		1.64-			T.> †	563.1	2.76	5.9	1.000009
0		8			41.1	583.5	55.2	5.8	1.000009
0	-	-48.5			40.1	584.0	49.8	4.5	1.000009
9		-48.1			39.5	584.4	39.5	3.5	1.000000

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GEODETIC COORDINATES	32.40043 LAT DEG	106.37033 LON DEG
UPPER AIR DATA 1150020126	WHITE SANDS	
STATION ALTITUDE 3989.00 FEET MSL	25 APR. 79 1330 HRS MST	ASCENSION NO. 188

INUEX OF REFRACTION	1.000009	1.000008	1.000008	1.000008	1.000008	1.000008	1.000007	1.000007	1.000007	1.000007	1.000007	1.000007	1.000006	1.000006	1.000006	1.000006
SPEED KNOTS	2.4	5.3	9.1	13.4	17.8	22.3	16.1	8.9	4.7	4.3	5.9					
WIND DATA CIRECTION SPI CEGREES(TH) KN	9.49	112.2	123.4	127.5	129.4	130.5	136.0	151.8	207.2	248.4	280.3					
SPEED OF SOUND ANOTS	584.8	585.3	585.7	580.1	586.6	587.0	587.4	587.9	588.3	564.7	589.1	589.6	590.0	590.4	590.8	591.5
DENSITY S GM/CUBIC METER	38.2	37.3	36.4	35.5	34.7	33.8	33.0	32.2	31.5	30.7	30.0	26.3	28.6	27.9	27.2	20.6
REL . HUM. PERCENT																
TEMPERATURE AIR DEMPOINT DEGREES CENTIGNADE	8.74-	-47.5	-47.1	-46.8	-46.5	-46.1	-45.8	-45.5	-45.1	8.44-8	5.44-	-44.1	-43.8	-43.5	-43.2	-42.8
PRESSURE MILL18ARS	24.7	24.5	23.6	23.1	55.6	22.1	51.6	21.1	50.6	20.1	19.7	19.5	18.8	18.4	18.0	17.6
GEOMETRIC ALTITUDE MSL FEET	83500.0	0.00040	94200.0	0.000009	c2200.0	86000.0	80200.0	87000.0	67500.0	0.00000	69500.0	89000.0	89500.0	0.00006	90500.0	0.00016

STATION ALIITUDE 3989.00 FEET MSL 1150020160 125 APF. 79 1330 HRS MST WHITE SANDS

GEODETIC COOKDINATES 32.40043 LAT DEG 106.37033 LON DEG

14 7.000							
DIR	ECTION	S	DATA	e i	DEW PT DEP	TEMPERATURE AIR	PRESSURE
3	DEG (TN)	RPS	MPS	N S	DEG C	DEG C	MILLIBARS
	***6666	*** 6666	*** 6566-	*** 6666-	66	-42.5	1.720+1
	259.	•	•	٨.	66	L-44-7	2.000+1
	74.	3.	7	-3.	66	-50.6	3.000+1
	323.	•6	-7-	ò	66	-57.7	5.000+1
	140.	1.	1.	-1.	66	-61.1	5.980+1
;	278.	11.	-2.	1,	66	-57.7	6.640+1
	283.	14.	-3.	14.	66	-64.3	7.000+1
	295.	7.	-3.	7.	66	-63.3	7.980+1
	298.	12.	-9-	11.	66	-57.2	9.270+1
	294.	23.	.6-	.17	66	-62.2	1.000+2

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

TAG CAIN	DEGREES(IN) KNOTS	. 267.0 9.	. 271.7	278.6		. 270.3	. 266.5	200.5	. 296.3	. 287.8		. 286.7			-	297.0 98.8	-	291.2 68.2					342.0 17.3	+	74.7 6.5		
	CENTIGRADE	-1.5 18	-4.2	N	•	-10.5 34	-14.7 31	-18.4 33	-22.3 37	-26.9 37		0	-47.8 28														
	DEGREES	24.3	19.6	14.3	0.6	4.7	ď.	1-4-7	-10.5	-15.6	-21.0	-28.0	-36.0	6.94-	-57.0	-63.1	-68.1	-67.0	-62.2	-63.2	-54.3	-61.0	-57.7	-54.6	-50.6	6.24-	
EOPOTENT!	FEET	4850.	6570.	8379.	10271.	12270.	14397.	16664.	19096.	21734.	24617.	-7809 .	31332.	35443.	40184.	42919.	45990	49581	54029.	28599	61285.	• + + + + 0	68189.	72842.	78940.	82564.	
PRESSURE GEOPOTENTIAL	MILLIBARS	850.0	800.0	750.0	700.0	650.0	0.009	550.0	200.0	450.0	0.004	350.0	300.0	250.0	200.0	175.0	150.0	125.0	100.0	0.08	20.07	6.09	20.0	0.04	30.0	. 25.0	

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON CEG	TEMPERATURE DEG C AIR PRESSURE 9944.7 2.000+1 9947.9 2.500+1 9950.6 3.000+1 9951.0 6.000+1 9961.0 6.000+1 9961.0 6.000+1 9961.0 6.000+1 9961.0 6.000+1 9962.2 1.000+2 9962.2 1.000+2 9962.2 1.000+2 1256.0 3.500+2 1256.0 3.500+2 1310.5 5.500+2 1410.5 5.500+2 1510.5 5.500+2 1610.5 6.500+2 1710.5 6.500+2 1810.5 6.500+2 1910.5 8.500+2 1910.5 8.500+2 1010.5 8.500+2 1110.5 8.500+2 1110.5 8.500+2 1210.5 8.500+2 1310.5 8.500+2 14.3 7.500+2 24	
MRI MANDATORY LEVELS 1150020148 WHITE SANUS	APS 41-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
9.00 FEET MSL 330 HRS MST	MIND DATA JEG (TN) SPEED 256. 2. 35. 25. 2. 50. 35. 25. 257. 297. 20. 297. 297. 20. 297. 297. 20. 297. 297. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 298. 20. 299. 20. 290. 24. 290. 25. 200. 24. 200. 24. 200. 24. 200. 25. 200.	
STATION ALIITUDE 3989.00 FEET MSL 25 APR. 79 1330 HRS MST ASCENSION NO. 188	GEOPOTENTIAL ALTITUDE DECAMETERS 2674. 2674. 2674. 2200. 2078. 1964. 1964. 1964. 1964. 1968. 1080. 1511. 1511. 1510. 1	

GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LON DEG

PRESSURE	GFOM	TEMPERATUR	THRE	RFI . HIM.
MILLIBARS	ALTITUDE MSL FEET	AIR DE DEGREES CE	WPOINT	PERCENT
	3997.3	6	4.1-	
	4147.6			
0	4812.6		-2.5	
•	7512.0	9	-6.8	
0	10238.4	8	-8-1	30.0
'n	11208.4	5,3	-8.5	
8	11568.8		-9.6-	
8	11953.5		4.6-	
8	12321.8		9.6-	
#	12545.3	9.4	-12.8	27.0
S	12960.7		-13.2	
8	16175.9	0.4-	-19.8	
0	190011		-21.1	•
8	22601.8		67	
0	24564.7		-33.4	•
8	27362.8		-38.8	•
0	31334.1	•	-48.2	•
2	31847.4	-38.0	6.64-	•
0	35398.9			
8	37668.0			
0	40148.4			
30	42792.0			
8	45338.9			
0	45963.8	-		
m	47856.9	-		
n	50490.5	-		
2	50828.4	-		
n	51704.3	-		
9	52394.9			
8	53406.7			
0	54020.7	3		
9	55153.9			
0	61365.0	-63.8		* 10 C
2	62110.8	-58.9		
8	64199.5	2		
	65412.4	-61.2		
		The second secon		

9		S	
	3997.30 FEET MSL	IRS MST	
	3997.30	1340 H	
	TUDE		-

GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LON DEG	INDEX OF REFRACTION	1.000246	1.000246	•	1.000241	•		•	1.000226	•	1.000221	•	1.000215	•	1.000210	1.000207	1.000203			1.000192		•	1.000178	1.000175	1.000172	•	•		1.000162	•	•		•	•	1000	1000	1.000138	.00013	00013
32.4 32.4 106.4	SPEED KNOTS	5.1	5.1	5.9	6.9	8.0	8.7	8.2	7.9	8.5	8.5	8.7	4.0	8.1	7.8		0.0		•	30.1	7.00				22.8		23.6	•				32.2		2000		36.7	36.7	38.0	40.1
	WIND DATA DIRECTION S DEGREES(TN) K	210.0	210.1	221.4	229.7	235.7	241.4	250.4	259.9	4.792	264.7	267.3	271.4	275.7	277.6	277.3	6.172	273.0	073	1.575	271.0	273.6	276.2	279.5	281.7	283.5	287.2	292.7	290.3	297.0	.16	9.762	0.067	207.5	4.00%	292.8	289.1	87.	88.
4 T A	SPEED OF SOUND KNOTS	679.1	679.1	675.0	672.8	671.1	669.3	7.	6,599	664.1	4.299	9.099	658.8	657.0	655	653	100	650.6	***	040		9			641.5		638.	630	635.4		634.	630	620	627.3	620.1	624	623	622.	
UPPER AIR UAT 1150060074 S m R	DENSITY S GM/CUBIC METER	1002.3	1002.3	997.2	986.3	0.476	962.0	950 - 1	938.3	956.8	915.0	903.3	891.9	980.6	869.5	858.5	1.1.0	854.5	6.230	4000	781.5	770-4	759.4	748.6	738.0	727.0	717.0	106.4	696.1	6000	675.8	665.9	0000	200	624.1	614.1	604.2	594.4	584.6
17 (4) C RIS D Q (REL . HUM. PERCENT	13.0	3	9	16.2	16.8	-	17.9	18.4	19.0	21.0	23.0	25.0	27.0	29.0	31.9	0.00	33.9	1 00	27.0		27.3	6-	-	-1	•	0	N	35.3	2	0 1	0.64) (v-	. 0	9	ð	8	~
IT MSL MST	TEMPERATURE R DEWPOINT EES CENTIGRADE	-1.4		-1-1	-2.8	-3.6	1.1-		0.9-		-6.8	6.9-	-7.1	-7.4	-7.8	-8.0	1.0	6.6-	***	12.0	14.4	-15.3	-16.3	-17.3	-18.4	-19.4	-19.8	-19.8	-20.0	-20.3	-20.6	-21.0	0.22	2002	-25.4	-26.5	-27.6		-29.8
97.30 FEET 1340 HRS MS	TEMP AIR DEGREES	30.0	30.0	26.3	54.4	22.9	21.4	19.9	18.4	16.9	15.4	13.9	12.3	10.8	9.5	9.2		? .		200	2.0	1.5	.2	-1.0	-2.3	-3.6	8.4.	1.9-	-7.3	9.0	6.6-	-11:1	1.21	1001	-15.1	-16.0	-17.0	18.	-18.9
UDE 399	PRESSURE MILLIBARS	874.3	874.2	859.3	844.4	829.6	815.1	800.9	786.9	173.1	759.2	745.6	132.2	719.0	1.00	693.3	0.000	0.899		641.6	919				574.4				531.6		2.110	20100	9-107	472.0	462.7	453.5	444.5	435.6	450.8
STATION ALLIT 25 APR. 79 ASCENSION NO.	GEOMETRIC ALTITUDE MSL FEET	3997.3			5000.0		0.0009		7000.0	•	•	8500.0	•	•		10500.0	0.00011	0.00011	0.0007	13000-0	135000	14000.0	14500.0	15000.0	15500.0	10000.0	10500.0	1,000.0	1,500.0	0.00001	18200-0	0.00061		0200		:		:	23000.0

UPPER AIR DATA	1150060074	& X 5	
	STATION ALTITUDE 3997.30 FEET MSL	25 APR. 79 1340 HRS MST	ASCENSION NO. 74

ITES	DEG	DEG
DIN	LAT	LON
C007	034	307
TIC	2.48	6.42
GEODE	32.48034 LAT DEG	10

PRESSURE TEMPERATRAL REL.HUM DENSITY SPEED OF WIND DATA INUM DATA INUM DATA INUM DENSITY SPEED OF WIND DEMPOLINT PERCENT (CHOICE SOURD DIFFECTION SPEED OF WIND DEMPOLINT SPEED OF WINDS DENSITY SPEED										
MILLILARS DEGREES CENTIFICADE MILET MILLILARS DEGREES (TN) MILLILARS DEGREES CENTIFICADE MILET MILLILARS DEGREES CENTIFICADE MILLIPART DEGREES CENTIFICADE MILLIPART DEGREES CENTIFICADE MILLIPART DEGREES C	GEOMETRIC	SSURE	TEM	PERATURE	REL . HUM		SPEED OF	MIND DA	TA	INDEX
418-2 19-8 -30-9 36-3 574-8 620-2 289-7 411-1 401-4 -216-7 -33-1 35-2 555-8 617-9 288-0 422-2 401-4 -216-7 -33-1 35-2 555-8 617-9 288-0 44-0 10-5 -22-8 -34-2 35-1 56-1 284-6 44-0 10-5 -25-3 -35-1 35-1 51-1 284-6 44-0 10-5 -27-1 -36-1 35-1 51-1 284-6 44-0 10-5 -27-1 -36-1 35-1 51-1 61-1 44-0 10-5 -27-1 -36-1 55-1 610-8 44-0 44-0 10-6 -27-1 -36-1 55-1 50-1 44-0 44-0 10-7 -27-1 -47-0 50-1 44-0 50-0 44-0 50-0 10-7 -27-1 -27-1 -47-0 50-0 44-0 50-0 44-0	ALTITUDE MSL FEET	RS	AIR	DEWPOINT CENTIGKADE	PERCENT	GM/CUBIC METER	SOUND	DIRECTION DEGREES(TN)	SPEED	OF REFRACTION
10. 401.4		418.2	-19.8	-30.9	36.3	;	620.2	289.7	41.1	.00013
10. 1914 - 21.6 - 35.2 34.2 555.8 617.9 286.0 49.7 10. 39.1 28.5 - 21.6 - 35.1 35.5 555.8 617.9 286.0 49.1 43.1 13.5 55.8 617.9 286.0 49.1 43.1 13.5 55.8 617.9 286.0 49.1 43.1 13.5 55.8 617.8 287.8 47.2 13.5 13.5 13.5 613.4 287.8 47.2 13.5 13.5 13.5 613.4 287.8 47.2 13.5 13.5 13.5 613.4 287.8 47.2 13.5 13.5 13.5 613.4 287.8 47.2 13.5 13.1 14.2 13.5 13.5 613.4 287.8 47.2 13.5 13.1 14.2 13.5 13.5 613.4 287.8 47.2 13.5 13.1 14.2 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	:	409.7	-20.7	-32.1	35.2	è		290.0	42.2	.00012
393.1 22.8 34.4 546.9 616.5 286.3 44.0 303.1 22.8 -34.1 35.0 556.8 611.8 284.6 43.4 30.1 26.5 -35.1 35.0 529.8 613.4 284.6 43.4 30.2 -26.6 -37.1 36.1 36.8 529.8 611.8 284.6 43.4 30.1 -40.3 36.8 50.1 60.1 284.8 44.3 30.1 -40.3 35.9 496.5 607.4 290.7 49.4 30.1 -41.5 35.9 496.5 607.4 297.8 47.4 30.1 -42.7 34.1 47.6 604.8 50.7 50.5 31.0 -42.7 37.4 463.6 60.1 297.8 47.4 40.4 31.0 -42.7 37.4 463.6 60.1 297.8 40.4 31.0 -42.7 37.4 447.8 40.4 40.4 40.4	:	401.4	-21.6	-33.2	34.2	555.8		288.0	43.7	
365.0 -24.1 -35.1 35.5 514.9 224.6 43.4 367.5 -25.3 -36.1 35.5 514.9 224.6 43.6 361.5 -27.3 -36.6 513.3 610.2 267.8 43.6 361.5 -27.3 -36.1 36.6 513.3 610.2 267.8 43.6 361.6 -30.1 -40.3 35.9 496.5 607.4 290.7 56.9 37.4 -30.1 -40.3 35.9 496.5 607.4 290.7 50.5 37.4 -40.3 35.9 496.5 607.4 290.7 50.6 37.4 -40.3 35.2 47.5 60.3 50.0 40.7 37.4 -40.3 35.2 44.7 40.0 50.0 50.0 37.4 -40.4 30.0 44.7 40.0 50.0 50.0 37.4 -40.4 30.0 44.7 40.0 50.0 50.0 37.4	:	393.1	-22.8	-34.2	34.4	246.9		286.3		
377.0 -25.3 -35.1 35.5 529.8 613.4 285.9 43.6 36.1 -26.6 -37.1 36.1 521.5 611.8 287.0 444.3 36.1 -37.1 36.8 505.1 608.7 287.0 444.3 36.0 -37.1 -40.3 35.9 466.0 607.4 287.0 444.3 37.0 -31.1 -41.5 35.0 486.0 607.4 287.0 444.3 37.0 -42.7 34.1 477.6 604.8 297.0 444.2 37.0 -43.2 -42.7 34.1 477.6 604.8 297.0 447.8 37.0 -43.2 -42.7 34.3 447.8 52.5 601.8 527.0 52.5 37.0 -43.6 -42.7 35.1 447.8 597.8 597.8 60.8 37.0 -44.9 -55.1 -55.1 447.8 597.8 297.8 60.8 37.0 -44.9	:	365.0	-24.1	-35.1	35.0	536.3	614.9	284.6		1.000122
35.0.2 25.6.6 -37.1 36.1 521.5 611.8 287.0 444.3 35.0.5 25.0.4 -36.1 36.6 501.1 600.7 269.0 47.2 35.0.0 -39.1 35.9 496.5 607.4 290.7 50.5 30.0 -39.1 -41.5 35.9 496.5 607.4 290.7 50.5 30.0 -39.2 -42.7 34.1 471.5 60.3 297.9 60.6 31.0 -33.2 -42.9 33.2 471.5 60.3 297.9 50.5 31.0 -34.3 -45.0 33.2 471.5 60.4 297.0 50.6 31.0 -35.3 -46.3 35.6 447.6 60.4 50.7 50.6 31.0 -35.4 -36.4 30.6 447.8 50.9 50.9 50.0 30.4 -36.4 -30.4 40.0 50.2 294.3 60.0 20.5 -41.0 -41.0	:	377.0	-25.3	-36.1	35.5	529.8	613.4	285.6		1.000120
36.5 -27.4 -38.1 36.6 513.3 610.2 287.8 47.2 35.6 -39.1 -40.5 35.0 496.5 607.4 290.7 50.8 39.0 -30.1 -40.5 35.0 496.5 607.4 290.7 50.8 10 331.8 -32.2 -42.7 34.1 479.6 604.8 297.4 499.4 10 331.8 -45.0 35.4 479.6 600.8 297.4 499.4 10 331.8 -45.0 32.4 479.6 600.8 297.4 50.9 10 37.4 -45.0 32.4 479.6 600.8 297.4 50.0 10 27.8 -47.8 30.6 447.8 599.5 297.4 50.0 10 28.4 -50.8 47.8 474.7 50.9 50.8 10 28.4 -50.1 29.8 47.8 50.9 50.9 50.9 10 28.4 -	:	369.2	-26.6	-37.1	36.1	521.5	611.8	287.0		1.000118
354.0 -29.0 -39.1 36.8 505.1 606.7 269.0 49.4 30.0 -40.3 35.9 496.0 600.1 293.8 50.5 30.0 -31.1 -41.5 35.9 406.0 600.1 293.8 51.6 30.0 -31.2 -42.7 34.1 479.6 604.8 297.0 50.5 30.0 -31.0 -35.3 -45.0 33.2 475.6 604.8 50.7 50.5 30.0 -31.0 -35.3 -46.2 31.5 60.6 50.5 50.7 50.9 60.8 60.8 60.8 60.1 <td>:</td> <td>361.5</td> <td>-27.8</td> <td>-38.1</td> <td>36.6</td> <td>513.3</td> <td>610.2</td> <td>287.8</td> <td>47.2</td> <td></td>	:	361.5	-27.8	-38.1	36.6	513.3	610.2	287.8	47.2	
340.4 -30.1 -40.3 35.9 496.5 607.4 290.7 50.5 10 334.0 -31.1 -41.5 35.0 496.5 607.4 297.8 50.5 10 331.8 -32.2 -42.7 34.1 479.6 604.8 297.8 52.7 10 331.8 -34.3 -45.0 32.4 46.2.1 297.8 60.0 10 317.8 -34.3 -45.0 31.6 46.0 59.5 60.0 10 304.4 -36.4 -47.8 31.5 60.0 60.0 10 204.4 -47.4 30.6 440.0 598.2 299.5 60.8 10 204.4 -47.4 30.6 440.0 598.2 299.5 60.8 10 204.4 -47.4 30.6 440.0 598.2 299.5 60.8 10 204.4 -47.4 30.6 447.8 599.5 299.5 60.8 10 <td< td=""><td>:</td><td>354.0</td><td>-29.0</td><td>-39.1</td><td>36.8</td><td>505-1</td><td></td><td>269.0</td><td>40.64</td><td></td></td<>	:	354.0	-29.0	-39.1	36.8	505-1		269.0	40.64	
339.0 -31.1 -41.5 35.0 486.0 600.1 293.8 51.4 10 331.8 -32.2 -43.9 33.2 4776.6 604.8 297.4 52.5 10 317.8 -34.3 -45.0 33.2 4776.6 604.8 297.4 52.5 10 317.8 -34.3 -45.0 33.2 4776.6 604.8 297.0 56.4 10 297.8 -37.4 -46.2 31.5 447.8 60.1 293.7 63.1 10 297.8 -37.4 -46.8 29.0 440.0 598.5 294.9 60.8 10 297.8 -47.9 -56.8 447.8 447.9 699.5 299.6 60.8 10 297.8 14.9 -65.8 14.4** 410.9 591.9 297.8 60.8 10 297.8 14.9 104.1 591.2 299.6 60.8 10 297.9 104.9 297.8 497.8 </td <td>280000.0</td> <td></td> <td>-30.1</td> <td></td> <td>35.9</td> <td>496.5</td> <td></td> <td>290.7</td> <td>50.5</td> <td>.00011</td>	280000.0		-30.1		35.9	496.5		290.7	50.5	.00011
331-8			-31.1		35.0	486.0		293.8	51.4	•
324.7 -33.2 -47.9 33.2 471.5 603.5 297.0 56.4 17.8 -34.3 -46.2 32.4 455.4 602.1 299.6 60.0 10.0 31.4 -46.2 32.4 465.4 602.1 299.6 60.0 10.0 297.8 -47.4 30.6 447.8 599.5 299.7 60.8 10.0 297.8 -48.8 29.0 440.0 598.2 299.8 60.8 10.0 297.8 -48.9 48.9 290.9 297.8 60.8 10.0 272.3 -42.3 -55.8 14.7 950.2 299.6 60.8 10.0 272.3 -42.3 -55.8 14.4***********************************			-32.2	-42.7	34.1	479.6		297.4	52.5	•
317.8 -34.3 -45.0 32.4 465.5 600.6 295.6 600.6 295.7 66.0 301.10 -35.3 -46.2 31.5 447.8 599.5 294.3 62.1 10 297.8 -37.4 -48.8 29.0 440.0 598.2 294.3 62.1 10 297.8 -37.4 -48.8 29.0 440.0 598.2 294.3 62.1 10 297.8 -47.0 29.0 440.0 598.2 299.6 60.8 10 272.3 -42.3 -58.8 14.4** 417.9 591.2 299.6 60.8 10 250.2 -42.3 -62.5 10.4** 417.9 591.2 301.9 62.4 10 250.2 -44.9 -62.5 10.4** 410.9 591.2 301.9 65.4 10 250.5 -44.9 -62.5 10.4** 410.9 591.2 301.9 65.4 10 250.5 -44.9 -62.5 10.4** 410.9 591.2 291.9 10.8		324.7	-33.2	-43.9	33.2	471.5		297.0	56.4	1.000106
311.0 -35.3 -46.2 31.5 465.5 600.6 293.7 65.3 304.4 -36.4 -47.4 30.6 447.8 599.5 294.3 62.1 304.4 -36.4 -47.4 30.6 447.8 599.5 294.3 62.1 30 291.3 -38.4 -56.7 22.0*** 425.0 599.2 297.6 60.8 30 264.3 -53.1 22.0*** 425.0 595.2 299.6 60.8 60.8 30 272.5 -44.0 -52.2 10.6*** 410.9 591.9 301.1 65.3 40 20.3 -44.9 -62.2 10.6*** 410.4 591.2 301.9 65.4 50 20.3 -44.9 -62.2 10.6*** 410.4 591.2 299.6 60.8 50 20.3 -44.9 -62.2 10.6*** 410.4 591.2 299.6 57.9 50 20.3 -44.9 -62.2		317.8	-34.3	-45.0	32.4	463.4		295.8	0.09	1.000104
304.4 -47.4 30.6 447.8 599.5 294.3 66.8 10 297.8 -37.4 -48.8 29.0 440.0 598.2 295.5 60.8 10 297.8 -37.4 -48.8 29.0 440.0 596.9 297.8 60.8 10 278.5 -41.0 -55.8 18.2** 417.9 591.9 301.1 66.8 10 278.5 -41.0 -55.8 14.4** 417.9 591.9 301.1 62.3 10 278.5 -41.0 -55.8 14.4** 417.9 591.9 301.9 65.8 10 278.5 -44.9 -65.2 16.8** 347.4 581.2 299.6 60.8 10 278.5 -46.3 -65.2 6.8** 347.4 581.2 298.9 77.9 10 286.5 -46.3 -65.6 585.7 298.9 77.9 10 287.5 585.7 586.5 77.9 10 287.6 575.7 296.5 74.0 10 2	-	311.0	-35.3	-46.2	31.5	455.5		293.7	63.3	1.000102
297.8 -37.4 -48.8 29.0 440.0 598.2 295.5 60.8 1.0 291.3 -38.4 -50.7 25.8** 442.2 596.9 297.8 60.2 1.0 264.8 -43.2 596.9 297.8 60.2 60.8 1.0 272.3 -42.3 -58.8 14.4** 417.9 591.9 301.1 62.3 1.0 272.3 -42.3 -58.8 14.4** 417.9 591.9 301.1 62.3 1.0 272.5 -46.3 -46.9 -65.9 591.9 301.1 62.3 1.0 272.5 -46.3 -47.9 301.4 65.9 501.1 65.9 1.0 28.4 -47.5 -66.5 44.1 591.2 294.9 77.9 1.0 28.4 -47.5 -73.0 3.0** 384.2 598.9 294.9 77.9 1.0 28.4 -47.5 -47.5 385.7 298.3 74.0		304.4	-36.4	+- 24-	30.6	8-244		294.3	62.1	1.000100
291.3 -38.4 -50.7 25.8** 432.2 596.9 297.8 60.2 10 264.4 -39.7 -53.1 22.0** 417.9 593.6 299.6 60.8 10 272.5 -41.0 -55.8 14.4** 410.9 593.6 301.1 65.8 10 272.2 -43.6 -62.2 10.6** 410.9 593.6 301.7 65.8 10 250.2 -44.9 -62.2 10.6** 410.9 593.6 301.9 65.4 10 250.5 -44.9 -62.2 10.6** 404.1 590.2 301.9 65.4 10 250.5 -44.9 -62.2 10.6** 404.1 590.2 301.9 65.4 10 248.8 -47.5 301.9 580.8 301.9 65.4 10 249.1 -47.5 301.9 580.9 77.9 10 243.1 -49.8 310.4 580.4 296.2 82.9 10 252.1 -52.0 357.2 579.4 296.2 104.2		297.8	-37.4	-48.8	29.0	0.044		295.5	8.09	1.000098
264.4 - 39.7 - 53.1 22.0** 417.9 595.2 299.6 60.8 100 272.3 - 41.0 - 55.8 18.2** 417.9 593.6 301.1 62.3 100 252.2 - 44.6 - 52.2 10.6** 400.1 591.9 301.7 62.8 100 250.5 - 44.9 - 56.5 6.8** 300.8 580.8 300.4 65.4 100 254.5 - 46.3 - 73.0 3.0** 390.8 580.8 300.4 67.9 100 254.5 - 49.8 - 47.5 - 73.0 3.0** 300.4 582.3 298.9 70.8 100 252.1 - 50.9 - 49.8 - 40.0 - 55.1 - 49.8 300.4 582.3 298.9 70.8 100 252.1 - 50.9 - 55.1 - 50.9 - 55.1 - 50.9 - 55.1 297.5 300.4 296.2 82.0 363.7 297.5 37.9 382.0 296.2 100 252.1 - 50.9 - 55.1 - 55.1 - 55.1 300.4 296.2 350.6 577.9 290.3 300.4 350.0 350.6 577.9 290.3 300.4 350.0		291.3	-38.4	50.7	25.8**	432.2		297.8	60.5	1.000097
278.5 -41.0 -55.8 18.2** 417.9 593.6 301.1 62.3 300 250.3 -42.3 -58.8 14.4** 410.9 591.9 301.7 65.8 300 250.5 -44.9 -65.2 10.6** 40.0 301.2 65.6 300 250.5 -46.3 -73.0 3.0** 390.8 580.2 298.9 70.8 300 248.8 -47.5 -73.0 3.0** 360.8 585.2 298.9 70.8 300 243.1 -48.6 -73.0 3.0** 360.8 298.9 70.8 300 243.1 -48.6 -73.0 3.0** 360.8 298.9 70.8 300 225.1 -50.9 377.2 580.4 296.2 74.0 300 220.8 -52.0 350.6 577.9 296.2 74.0 300 220.3 -54.1 570.4 596.2 296.7 98.0 300 220.3 -55.2 37.4 57.3 296.3 104.5 300	:	264.9	-39.7	m	2.0	425.0		5662	8.09	1.000095
272.3 -42.3 -58.8 14.4** 410.9 591.9 301.7 65.8 10 260.2 -65.5 10.6** 404.1 590.2 301.9 65.4 10 260.3 -44.9 -65.5 10.6** 404.1 590.2 301.9 65.4 10 254.5 -46.3 -73.0 3.0** 586.2 298.9 77.9 10 243.1 -48.6 -73.0 3.0** 585.2 298.9 77.9 10 243.1 -49.8 77.2 585.7 296.8 77.9 10 252.1 -50.9 377.2 580.4 296.2 82.0 10 225.2 -49.8 77.9 296.2 82.0 77.9 10 225.1 -55.2 350.6 577.4 296.2 82.0 77.9 10 211.2 -55.2 357.4 575.1 296.7 88.9 101.0 10 210.3 -56.3 357.4 572.3 296.7 92.0 104.5 104.5 104.5 104.5 <t< td=""><td>÷</td><td>278.5</td><td>-41.0</td><td>2</td><td>18.2**</td><td>417.9</td><td></td><td>301.1</td><td>62.3</td><td>1.000093</td></t<>	÷	278.5	-41.0	2	18.2**	417.9		301.1	62.3	1.000093
200.2 -43.6 -52.2 10.6** 404.1 590.2 301.9 65.4 10.0 254.5 -44.9 -56.5 6.6** 301.2 66.6 66.6 10.0 254.6 -46.3 -73.0 3.0** 390.8 580.2 298.9 70.8 70.9 10.0 243.1 -49.8 -73.0 3.0** 363.7 296.2 74.0 77.9 74.0 77.9 77.0 77.9 77.9 77.9 77.9	-	272.3	-42.3	ന	****	410.9		301.7	63.8	1.000092
1.0 254.5 -44.9 -56.5 6.64.4 300.8 586.5 501.2 66.6 1.0 254.5 -46.3 -73.0 3.0** 390.8 586.2 298.9 70.8 1.0 243.1 -48.6 377.2 585.2 294.9 74.0 1.0 237.5 -49.8 377.2 582.3 296.8 77.9 1.0 225.1 -59.9 363.7 296.8 77.9 1.0 221.5 -53.1 357.6 577.9 296.2 82.0 1.0 221.5 -53.1 337.6 577.9 296.3 88.9 1.0 211.2 -55.2 337.6 575.1 296.7 92.0 1.0 211.2 -56.3 331.4 575.7 296.7 95.0 1.0 201.4 -57.4 296.7 95.0 104.5 1.0 201.4 -56.5 319.1 594.5 101.0 1.0 201.4 -56.5 319.1 594.5 114.5 1.0 1.0 20.9 <t< td=""><td></td><td>2002</td><td>-43.6</td><td>N.</td><td>10.6**</td><td>404.1</td><td>590.5</td><td>301.9</td><td>4.69</td><td>1.000090</td></t<>		2002	-43.6	N.	10.6**	404.1	590.5	301.9	4.69	1.000090
0.0 254.5 -46.3 -73.0 3.0** 390.6 580.6 298.9 70.8 0.0 248.8 -47.5 -73.0 3.0** 384.2 589.9 70.8 0.0 237.5 -49.8 77.9 77.9 0.0 225.1 -50.9 357.2 596.2 82.0 0.0 221.5 -53.1 357.4 296.2 85.0 0.0 221.5 -54.1 357.6 577.9 296.2 88.9 0.0 21.2 -55.2 357.6 577.9 296.2 88.9 0.0 21.2 -55.2 357.6 575.1 296.7 95.0 0.0 21.2 -56.3 351.4 575.1 296.7 95.0 0.0 20.4 -56.3 351.4 575.1 296.7 95.0 0.0 20.4 -56.5 319.1 596.5 104.5 101.0 0.0 197.9 -56.5 319.1 596.5 296.9 104.5 114.3 0.0 197.2 -59.7 30	:	500.3	6.55-	;	6.8**	341.4		30105	9.99	
0.0 248.8 -47.5 0.0 248.8 -47.5 0.0 243.1 -48.6 0.0 237.5 -49.8 0.0 237.5 -49.8 0.0 225.6 -50.9 0.0 226.8 -50.9 0.0 221.5 -59.1 0.0 221.5 -59.1 0.0 211.2 -56.1 0.0 211.2 -56.3 0.0 201.4 -57.4 0.0 201.4 -57.4 0.0 201.4 -57.4 0.0 201.4 -57.4 0.0 201.4 -57.4 0.0 201.4 -57.4 0.0 201.4 -57.7 0.0 201.4 -57.7 0.0 201.4 -57.7 0.0 201.4 -57.7 0.0 201.7 294.5 0.0 151.9 -59.7 0.0 151.9 -59.7 0.0 162.7 294.5 0.0 162.7 294.5 0.0 162.7 294.5 0.0 162.7 294.5 0.0 104.5 0.0 1	÷	254.5	-46.3	73.	3.0**	390.8		300.4	61.9	
0.0 243.1 -48.6 377.2 583.7 297.5 74.0 0.0 237.5 -49.8 370.4 582.3 296.6 77.9 0.0 225.1 -50.9 357.2 596.2 85.0 0.0 221.5 -53.1 357.6 577.9 296.7 88.9 0.0 210.2 -56.1 344.1 577.9 296.7 92.0 0.0 210.2 -56.3 344.1 577.9 296.7 92.0 0.0 210.2 -56.3 331.4 575.1 297.2 92.0 0.0 201.4 -57.4 355.2 572.3 298.5 101.0 0.0 151.9 -56.5 319.1 576.5 294.5 101.0 0.0 151.9 -59.7 315.1 594.5 104.5 0.0 151.9 -60.9 307.3 567.6 299.5 114.3 0.0 174.0 -64.2 299.5 114.3 114.3 0.0 174.0 -64.2 290.1 569.0 299.5 119.5 0.0 174.0 -64.2 290.1 569.0 299.5 124.3	•	248.8	-47.5			384.2		298.9	70.8	1.000086
0.0 237.5 -49.8 370.4 582.3 296.6 77.9 0.0 232.1 -50.9 357.2 579.4 296.2 82.0 0.0 225.6 -52.0 357.2 577.9 296.7 82.0 0.0 215.2 -54.1 344.1 577.9 296.7 92.0 0.0 215.2 -55.2 337.6 577.9 297.2 92.0 0.0 216.3 -56.3 331.4 575.1 297.7 95.0 0.0 201.4 -57.4 311.4 575.3 298.5 101.0 0.0 195.6 -56.5 319.1 570.7 298.5 104.5 0.0 151.9 -59.7 296.9 104.5 109.4 0.0 167.9 -59.7 299.5 114.3 114.3 0.0 174.0 -60.9 301.5 560.0 299.5 114.3 0.0 174.0 -64.2 290.1 569.6 299.5 114.3 174.0 -64.2 290.1 569.0 299.5 119.5 174.0 -64.2 290.1 569.0 299.4 124.3	-	243.1	9.84-			377.2	583.7	297.5	74.0	1.000084
252.1 -50.9 363.7 580.4 296.2 82.0 100 226.8 -52.0 357.2 579.4 296.3 85.5 100 221.5 -53.1 350.6 577.9 296.7 88.9 101 211.2 -56.3 344.1 576.5 297.2 92.0 101 211.2 -56.3 331.4 575.1 297.7 95.0 101 201.4 -57.4 355.2 298.1 98.0 101.0 101 201.4 -57.4 325.2 575.3 298.5 101.0 101.0 101 156.5 -56.5 319.1 570.7 298.5 104.5 109.4 101 151.9 -59.7 307.3 567.6 299.5 114.3 119.5 100 152.7 -62.0 307.3 566.0 299.5 114.3 119.5 101 174.0 -62.0 299.5 124.3 124.3 124.3 101 174.0 -64.2 290.1 569.1 569.6 126.5 126.5 </td <td>÷</td> <td>237.5</td> <td>8.64-</td> <td></td> <td></td> <td>370.4</td> <td>585.3</td> <td>296.8</td> <td>77.9</td> <td>.00008</td>	÷	237.5	8.64-			370.4	585.3	296.8	77.9	.00008
0.0 225.8 -52.0 357.2 579.4 290.3 85.5 1 0.0 221.5 -53.1 350.6 577.9 290.7 88.9 1 0.0 210.3 -54.1 344.1 576.5 297.2 92.0 1 0.0 211.2 -55.2 337.6 575.1 297.7 95.0 1 0.0 201.4 -57.4 351.4 573.7 298.1 101.0 1 0.0 156.5 -56.5 319.1 570.7 298.5 104.5 1 0.0 151.9 -59.7 315.1 569.6 299.5 114.5 1 0.0 182.7 -60.9 307.3 567.6 299.5 114.3 1 0.0 174.0 -64.2 290.1 569.5 564.5 299.5 1 0.0 174.0 -64.2 290.1 569.6 299.5 1 249.5 1	•	232.1	-20.9			363.7	580.4	296.5	82.0	1.000081
0.0 221.5 -53.1 350.6 577.9 296.7 88.9 1 0.0 21b.3 -54.1 344.1 576.5 297.2 92.0 1 0.0 21b.3 -56.3 337.6 575.1 297.7 95.0 1 0.0 20b.3 -56.3 331.4 573.7 298.5 101.0 1 0.0 150.4 -57.4 325.2 576.3 298.5 101.0 1 0.0 151.9 -59.7 319.1 569.5 298.5 104.5 1 0.0 152.9 -59.7 307.3 567.6 299.5 114.3 1 0.0 162.7 -60.9 307.3 567.6 299.5 114.3 1 0.0 174.0 -64.2 290.1 569.5 569.5 1 249.5 1 0.0 174.0 -64.2 290.1 569.5 1 269.5 1 2 2 2 2 2 2 2 2 2 2 2 2 2	:	220.8	-52.0				579.4	290.3	85.5	
0.0 216.3 -54.1 576.5 297.2 92.0 0.0 211.2 -55.2 337.6 575.1 297.7 95.0 0.0 206.3 -56.3 331.4 573.7 298.1 98.0 0.0 201.4 -57.4 325.2 572.3 298.5 101.0 0.0 156.5 56.5 294.5 101.0 101.0 0.0 151.9 -59.7 315.1 569.5 299.5 114.5 0.0 178.7 -62.0 299.5 114.3 119.5 0.0 178.3 -63.2 296.5 564.5 299.5 119.5 0.0 174.0 -64.2 290.1 563.1 299.4 121.2	:	251.5	-53.1			350.6	577.9	290.7	68.9	.00007
0.0 211.2 -55.2 0.0 206.3 -56.3 0.0 206.3 -56.3 0.0 201.4 -57.4 0.0 156.5 -56.5 0.0 151.9 -56.5 10.0 147.2 -60.9 10.0 182.7 -59.5 10.0 182.7 -63.2 296.9 56.5 299.5 119.5 119.5 10.0 174.0 -64.2 290.1 56.1 299.4 121.2 124.3 121.2 121.2	÷	210.3	-54.1			344.1	576.5	297.2	92.0	1.000077
0.0 206.3 -56.3 331.4 573.7 298.1 98.0 0.0 201.4 -57.4 325.2 572.3 298.5 101.0 0.0 156.5 -56.5 104.5 104.5 104.5 0.0 151.9 -59.7 294.5 104.5 109.4 0.0 187.2 -60.9 307.3 567.6 299.5 114.3 0.0 178.3 -63.2 299.5 119.5 119.5 0.0 174.0 -64.2 290.1 564.1 299.4 121.2	:	211.2	-55.5			337.6	575.1	297.7	95.0	
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3.19.1 570.7 296.9 104.5 3.10.1 151.9 -59.7 109.4 109.4 3.10.1 154.2 299.5 114.3 114.3 3.10.1 152.7 -62.0 299.5 114.3 119.5 3.10.1 178.3 -63.2 299.5 124.3 119.5 3.10.1 174.0 -64.2 290.1 563.1 299.4 121.2	ċ	201.4	-57.4			325.2	572.3	298.5	01.	1.000072
313.1 569.2 299.2 109.4 1 307.3 567.6 299.5 114.3 1 30.0 182.7 -62.0 301.5 566.0 299.5 119.5 1 30.0 178.3 -63.2 299.5 124.3 1 30.0 174.0 -64.2 299.1 121.2 1	:	156.5	-56.5			319.1		590.6	. 40	1.000071
10.0 187.2 -60.9 307.3 567.6 299.5 114.3 1 10.0 182.7 -62.0 301.5 566.0 299.5 119.5 1 10.0 178.3 -63.2 296.9 564.5 299.5 124.3 1 10.0 174.0 -64.2 290.1 563.1 299.4 121.2 1	:	161.9	-59.7			313.1		2.667	109.4	1.000070
0.0 162.7 -62.0 301.5 566.0 299.5 119.5 1 0.0 178.3 -63.2 296.9 564.5 299.5 124.3 1 0.0 174.0 -64.2 290.1 563.1 299.4 121.2 1	-	187.2	6.09-			307.3	567.6	299.5	114.3	1.000068
0.0 178.3 -63.2 124.3 1 0.0 174.0 -64.2 299.4 121.2 1	÷	182.7	-62.0			301.5	566.0	299.5	119.5	1.000067
0.0 174.0 -64.2 121.2 1	·	178.3	-63.2			295.9	564.5	5.667	124.3	1.000066
	-	174.0	-64.2			290.1	563.1	589.4	121.2	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LON DEG	INUEX OF REFRACTION	1.000053	1.000042	1.000061	1.000059	1.000058	1.000057	.00005	1.000054	1.000053	1.000051	1.000050	1.000049	1.000048	1.000046	1.000045	1.000043	1.000042	1.000041	1.000041	1.000040	1.000039	1.000037	1.000036	1.000035	.00003	1.000033	1.000032	•	.00003	1.000030	1.000030	1.000029	1.000028	1.000028	1.000027	00000		1.000025	1.000024	•
6E0DETIC 32.4 106.4	SPEED KNOTS	118.0	108.3	98.1	8.06	84.1	80.1	77.6	76.5	78.0	19.5	82.2	6.48	86.4	85.9	85.4	85.6	79.5	74.5	999	58.4	48.1	37.1	28.9	23.0	19.5	19.9	50.9	24.5	:		8	8	54.9	21.0	16.9	C	7.9	4.2	2.8	2.0
	WIND DATA DIRECTION S DEGREES(TN) K	29900	2000	299.3	249.1	298.8	298.2	297.6	290.8	295.8	594.9	294.2	293.6	293.3	293.7	294.0	294.7	595.6	290.5	297.1	293.0	298.9	300.5	301.6	303.0	304.5	303.0	305.9	300.7	299.1	297.2	294.8	292.5	289.8	280.1	281.9	277.0	266.5	245.7	177.5	30.
74 74	SPEED OF SOUND KNOTS	562.1	2 4 4			558.4	558.4	557.8	S.	550.6	550.3	556.9	557.2	557.6	558.0	554.5	562.2	561.8	560.9	559.5	558.5	559.4										-	565.0	565.2	564.8	564.3	563.9	565.3	569.3	569.4	566
UPPER AIR DATA 1150060074 5 m r	DENSITY GM/CUBIC METER	283.9	277.0	272.1	260.3	260.4	253.9	248.1	242.4	236.8	231.1	225.0	219.1	213.3	207.7	202-1	194.6	190.0	186.0	182.3	178.4	173.4	160.8	161.3	150.2	152.2	148.7	145.3	142.0	138.8	135.6	132.5	129.5	126.6	1.23.7	120.9	116.1	114.7	110.4	107.7	105.5
>	REL . HUM. PERCENT																																								
T MSL MST	TEMPERATURE AIR DEWPOINT EGREES CENTIGKADE																																								
3997.30 FEET M 1340 HRS MST	TEMP AIR DEGREES	-65.0	-65.7	1.99-	-67.2	-67.7	-67.7	-68.2	-68.6	0.69-	-69-2	-68.9	-68.6	-68.3	-68.0	-67.6	6.49-	-65.2	-65.9	6.99-	-67.6	-67.0	0.49-	-62.3	-600-	2.09-	-60.5	-60.8	-61.1	-61.4	-61.8	-62.1	-62.4	-62.7	-63.0	-63.3	-63.6	-62.6	-59.6	-59.5	-60.3
1UDE 39	PRESSURE MILLIBARS	1.69.7	165.5	161.4	157.4	153.5	149.7	140.0	142.3	138.8	135.3	131.9	128.6	125.4	122.3	119.2	110.3	113.4	110.6	107.9	105.2	102.6	100.1	1.76	90.0	95.0	8.06	88.0	80.4	20.40	85.3	80.0	10.4	76.5	74.6	72.8	71.1	69.3	67.7	0000	•
STATION ALIII 25 APR. 79 ASCENSION 140.	GEOMETRIC ALTITUDE MSL FEET	43500.0	4000	500		45500.0		0	47000.0		.000		0.00064			50500.0		51500	5 52000.0	52500.0	53000.0	53500.0	24000.0	24500.0	0.00000	0.00555	0.00000	200090	27000.0	27500.0	0.00085	28500.0	200000	_		0		8	0.00029	2	03000.0

GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LON DEG	INDEX OF REFRACTION	1.000023 1.000023 1.000022 1.000021
6E0DETI 32• 106•	ATA SPEED KNOTS	7.1
	WIND DIRECTION DEGREES(TN)	127.7
74 74	SPEED OF SOUND KNOTS	103.3 567.3 101.2 566.3 98.8 566.2 96.3 560.7
UPPER AIR DATA 115000074 S M R	REL.HUM. DENSITY SPEED OF PERCENT GM/CUBIC SOUND METER KNOTS	103.3 101.2 96.6 96.3
	REL . HUM. PERCENT	
ET MSL MST	GEOMETRIC PRESSURE TEMPERATURE ALTITUDE AIR DEWPOINT MSL FEET MILLIBARS DEGREES CENTIGRADE	
7.30 FE	TEMF AIR DEGREES	-61.1 -61.9 -62.0 -61.5
.TITUDE 399	SEOMETRIC PRESSURE ALTITUDE MSL FEET MILLIBARS	62.9 61.4 59.9 58.5
STATION ALTITUDE 3997.30 FEET MSL 25 APR. 79 1340 HRS MST ASCENSION NO. 74	GEOMETRIC ALTITUDE MSL FEET	63500.0 64500.0 64500.0

GEODETIC COORDINATES 32.48034 LAT DEG 106.42307 LON DEG
MRN SIGNIFICANT LEVEL DATA 1150060074 S m R
STATION ALTITUDE 3997.30 FEET MSL 25 APR. 79 1340 HRS MST ASCENSION NO. 74

w w	PRESSURE MILLIBARS		_			_	
EMPERATUR	AIR DEG C	-61.2	-62.2	-58.9	-63.8	0.09-	-63.9
	DEW PT DEP DEG C		66				
	MPS	***6666-	*** 6566-	·	2.	•	16.
DATA	S S S	***6666-	***6666-	-	-0-	-9-	-10.
MIND	SPEED	***6666	. *** 6666	· 2	5.	11.	. 19.
	DIRECTION DEG (TN)	***6666	***6666	236.	272.	304.	300.
GEOPOTENTIAL	ALTITUDL DECAMETENS	1967	1950.	1987.	1862.	1676.	1041.

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

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PRESSURE	PRESSURE GEOPOTENTIAL	TEM	URE	REL . HUM.	WIND DATA	ATA
MILLIBARS	FEET	DEGREES CENT	CENTIGRADE		DIRECTION DEGREES (TN)	KNOTS
850.0			-2.5	10.		6.5
800.0			-5.5	16.		8.1
750.0			6.9-	22.		4.7
700.0			-8.1	30.		7.6
0.u29			-6.5	34.		27.1
0.009			16.0	27.		26.6
250.0			19.6	31.		23.7
200.0			21.1	. 44		32.6
450.0			56.9	.04		36.7
0.004			33.4	34.		43.9
350.0	27719.	59.6	-39.7	36.	289.9	6.64
300.0			48.2	30.		61.0
250.0						70.1
200.0		-57.7				01.8
175.0		0.49-				22.0
150.0		-67.7				4.08
125.0		-68.3				86.3
100.0		-63.9				37.3
80.0		-62.1				28.8
70.07		-53.8				9.8
0.09		-62.0				

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

MRN MANDATORY LEVELS 1150060074 S M R	
STATION ALITUDE 3997.30 FEET MSL 25 APR. 79 1340 HRS MST	ASCENSION NO. 14

GEODETIC COOKDINATES 32.48034 LAT DEG 106.42307 LON DEG

	PRESSURE	Σ	6.000+1	7.000+1	8.000+1	1.000+2	1.250+2	1.500+2	1.750+2	2.000+2	2.500+2	3.000+2	3.500+2	4.000+2	4.500+2	5.000+2	5.500+2	6.000+2	6.500+2	7.000+2	7.500+2	8.000+2	8.500+2
TEMPERATURE	AIR	DEG C	-62.0	-63.8	-62.1	-63.9	-68.3	-67.7	0.49-	-57.7	-47.3	-37.1	-59.6	-21.8	-16.4	-11.3	-5.1	9.	3.3	8.5	14.4	19.8	25.0
	DEW PT DEP	٠	66	66	66	66	66	66	65	66	66	11	10	12	10	10	15	17	13	17	21	52	28
	₩ .																						
ATA	01 C	S L	***6666-	•	-6.	-10.	-18.	-20.	-31.	-25.	-18.	-13.	-6-	-7.	-7.	-8-	. 4.	7	-1.	-1-	•	1.	•
ONIM	SPELD	S PE	***6666	5.	15.	19.	• † †	41.	65.	52.	36.	31.	26.	25.	19.	17.	14.	14.	14.	. +	;	;	3.
	DIRECTION		***6666									,											
GEOPOTENTIAL	ALTITUDE	UECAME IERS	1958•	1862.	1780.	1641.	1506.	1397.	1304.	1221.	1077.	953.	845.	748.	•099	560.	2000	437.	372.	312.	254.	199.	. 147.

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

TA		
DATA		
VEL	1150010199	
7	010	ZAN
CAN	150	HOLLOMAN
IFI	-	ç
1919		

GEODETIC COORDINATES 32.88865 LAT DEG 106.09965 LON DEG

A 9			N	25	35	42.	38.	36.	÷	7.	ò	37.0	9												
ERATURE DEWPOINT CENTIGRADE	1.7	1:-	7	-3.7		-3.9		23.		33.	36.		20.												
TEMPE AIR DEGKEES	4.	2	22.0	16.4	•	2.7	†	11.	•	3		-	•	•			•	0			0	h • 1,9-	-65.2	. 1	3.
GEOMETRIC ALTITUDE MSL FEET	-	166.	306.	6530.2	248.	703.	363.	041.	236.	561.	138.	317.	. 405	369.	755.	092.	938.	988.	909.	254.	431.	193.	393.	907.	.009
PRESSURE MILLIBARS	872.3	962.Ū	850.0	792.8	20000	663.0	610.6	200.0	455.4	0.004	374.6	300.0	282.6	250.0	234.4	200.0	174.0	150.0	145.4	133.0	125.3	120.6	113.6	110.4	107.0

Sales Sales

ON ALTITUDE 4126.59 FEET MSL

815.3 24.9 1.7 22.0 1016.5 673.6 260.0 7.0 1.000255 240.0 21.6 -9 22.2 669.7 297.5 669.7 2	STATION ALLITUDE 4126.59 25 APR. 79	TEMPERA AIR DE	TEMPERATURE AIR DEWPOINT EGREES CENTIGRADE	REL . HUM.	DENSITY GMZCUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION S DEGREES(TN) K	SPEED KNOTS	INDEX OF REFRACTION
21.0 21.0 22.0 997.2 669.7 291.2 7.3 11.3 11.3 11.3 11.3 11.3 11.3 11.3		24.9	1.7	· o		673.	260.0	•	00025
1. 20.2 18.8					007	200	291.0		1000
17.3 -2.3 23.7 972.1 666.4 315.6 8.9 17.3 -2.3 24.5 95.4 664.7 326.8 5.0 17.3 -2.3 24.5 95.4 664.7 326.8 5.0 17.3 -2.3 25.5 94.4 661.5 326.9 95.0 17.3 -2.3 22.9 94.4 661.5 326.9 326.9 95.0 17.3 -2.3 22.3 22.5 94.4 655.5 655.5 526.9 326.9 17.5 17.5 -2.3 24.3 865.5 655.5 655.5 326.9 326.9 17.5 17.5 -2.4 41.5 865.5 655.5 655.5 326.9 17.5 17.5 17.5 17.5 -2.4 41.5 865.5 655.5 655.5 526.9 326.9 17.5 17.5 17.5 -2.4 41.5 865.5 645.5				10	84.	666.	305.7		00004
11.33	-			3	72.	6699	315.6		00023
15.9 -3.8 25.5 947.4 665.5 326.1 9.0 15.9 -3.8 25.5 29.4 922.6 65.5 320.9 320.9 11.5 11		-		÷	59.	664	324.4		0000
14.5				ŝ		663.	÷		0005
13.1 -4.8 29.4 922.6 655.8 327.4 10.8 10.7 -5.3 32.9 910.4 655.2 327.9 11.5 11.7 -5.3 32.9 910.4 655.2 327.9 11.5 11.5 11.5 11.7 -5.5 32.8 886.7 654.9 320.9 12.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5				2		661.		6.6	0000
11.7						659	2	,10.8	.0002
10.3			2	6		655.	:	11.5	.00022
19.5 19.5			2	:		650.	÷	12.5	.00021
5 6 6 1 1 2 6 2 1 4 1 1 2 1 2 1 1 2 1 1 1 1 1 1 1 1 1		•	91	å.		654.	50	13.5	.00021
6			-	· t		653.	319.3	14.4	.00021
3.3 - 9.4		1.0	: .	• a		651.	312.7	17.6	.00020
1.3			n a	0.00		000	2000	10.01	
11.9		2.4	. 6	41.0		647.	297.0	24.3	
1.3 -10.9 39.6 800.0 645.9 282.7 34.0 1.3 -10.9 39.6 800.0 645.9 282.7 34.3 1.3 -10.9 39.6 1.3.7 73.7 644.5 269.1 34.9 1.2 1.3.6 37.6 773.7 644.5 269.1 34.9 1.1 -12.5 38.0 7.6 1.1 643.1 266.0 34.8 1.2 1.3.6 37.2 7.6 7.7 7.4 6.3 1.1 269.1 34.9 1.1 1.2 1.2 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3		1.9		40.5		640.	289.7	29.0	_
780.6 645.3 275.7 34.3 1.1.5 38.7 773.7 644.5 269.1 34.9 1.1.5 38.0 773.7 644.5 269.1 34.9 1.1.5 1.2.5 38.0 775.1 643.1 266.0 34.8 1.1.5 1.2.5 37.4 726.6 641.8 266.1 33.9 1.1.5 1.2		1.3	:	39.6		645.	282.7	34.0	-
73.7 644.5 269.1 34.9 1.1.0 -12.5 38.0 773.7 644.5 269.1 34.9 1.1.0 -13.6 37.6 750.6 641.8 265.2 34.8 1.1.0 -15.8 37.2 750.6 641.8 265.2 34.8 1.1.0 1.1.0 37.2 77.4 728.3 639.1 269.1 33.1 1.1.0 25.5 -18.9 36.8 77.4 637.7 275.4 33.1 1.1.1 225.1 36.8 695.6 635.3 282.5 30.0 1.1.1 22.1 36.8 695.6 635.0 286.9 30.2 1.1.1 223.2 36.8 655.3 625.0 296.6 33.3 1.1.1 223.2 35.0 655.3 623.0 296.6 33.3 1.1.1 223.2 35.0 655.3 623.0 296.1 34.9 1.1.1 221.1 221.1 35.8 643.9 623.0 296.1 34.9 1.1.1 221.1 221.1 221.1 35.8 643.9 623.1 294.0 38.0 1.1.1 221.1		e •	:	38.7		645.	275.7	34.3	-
752.1 645.1 256.0 37.8 752.1 645.1 256.0 34.8 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2			i	38.0		• 449	269.1	34.9	-
14.5 14.5 17.6 17.7 17.6		-1.0	9:	37.8		940	260.0	34.8	-
- 10.0		1.2.	u t	37.6		641.	2625.2	8.4%	
-5.5 -17.8 37.0 717.4 637.7 275.6 31.3 1.00		14.4	16	47.0		2 4 6	1.696	4 6 6 7	-
2 -6.6 -18.9 36.6 706.6 636.3 282.5 30.0 1.00		-5.5		37.0		637.	275.6	31.3	
-7.7 -20.0 36.6 69e.6 635.0 286.9 30.2 1.0001 -8.9 -21.0 36.4 685.e 635.e 295.2 30.8 1.0001 -22.1 36.2 675.4 632.2 296.6 32.0 1.0001 -23.2 35.0 655.3 630.9 296.6 32.3 1.0001 -25.0 35.8 654.5 629.7 296.1 34.9 1.0001 -25.9 35.3 623.4 627.4 294.5 38.0 1.0001 -26.9 35.1 622.0 626.2 295.1 36.7 1.0001 -26.9 35.1 622.0 626.2 294.0 39.1 1.0001 -27.8 34.8 612.9 623.9 288.0 39.1 1.0001 -27.7 -29.5 34.1 553.5 621.0 288.0 39.1 1.0001 -27.7 -29.5 34.1 553.5 621.0 288.0 41.5 1.0001		9.9-		36.8		636.	282.5	30.0	0
6 -8.9 -21.0 36.4 685.6 632.6 295.2 30.8 1.0001	-	-7.7	ċ	36.6		635.	289.9	30.2	00016
6 -10.0 -22.1 36.2 675.4 632.2 296.6 32.0 1.0001	-	-8.9	-	36.4		633.	295.2	30.8	0001
-11.1 -23.2 35.0 655.5 630.9 296.7 33.3 1.0001 -12.1 -24.1 35.8 654.5 629.7 290.1 34.9 1.0001 -13.0 -25.0 35.5 643.9 620.5 295.1 36.7 1.0001 -25.0 35.3 643.9 620.5 295.1 36.7 1.0001 -25.9 35.3 623.4 627.4 294.5 38.0 1.0001 -26.9 35.1 622.0 626.2 294.0 39.1 1.0001 -15.8 -27.8 34.8 662.9 623.9 288.0 39.1 1.0001 -17.7 -29.5 34.4 593.1 622.0 267.1 40.5 1.0001 -25.9 41.5 34.1 523.5 621.5 260.9 41.5 1.0001	-	•	25.	36.5		635.	296.6	32.0	0001
12.1 -24.1 35.8 654.5 629.7 290.1 34.9 1.0001 1.13.0 -25.0 35.5 643.9 620.5 295.1 36.7 1.0001 1.13.9 -25.9 35.3 643.9 620.5 295.1 36.7 1.0001 1.13.9 -25.9 35.1 623.4 627.4 294.5 38.0 1.0001 1.14.9 -26.9 35.1 623.4 627.4 294.5 38.0 1.0001 1.15.8 -27.8 34.8 612.9 623.1 291.3 39.2 1.0001 1.15.8 -28.7 34.6 602.9 623.9 288.0 39.1 1.0001 1.17.7 -29.5 34.4 593.1 622.0 287.1 40.5 1.0001 1.18.7 -30.5 34.1 523.5 621.5 280.9 41.5 1.0001	-	:	23.	35.0		630.	290.7	33.3	00015
13.0 -25.0 35.5 643.9 623.5 295.1 36.7 1.0001 -25.9 35.3 623.4 627.4 294.5 38.0 1.0001 -26.9 35.1 623.0 626.2 294.0 39.1 1.0001 -15.8 -27.8 34.8 612.9 623.1 291.3 39.2 1.0001 -16.8 -28.7 34.6 602.9 623.9 288.0 39.1 1.0001 -17.7 -29.5 34.4 593.1 622.0 287.1 40.5 1.0001	-	ċ	54.	35.8	•	659	290.1	34.9	.00015
13.9 -25.9 35.3 633.4 627.4 294.5 38.0 1.0001 1.000	-	3	25.	35.5		620.	295.1	36.7	00014
15.8 -26.9 35.1 623.0 626.2 294.0 39.1 1.0001 -15.8 -27.8 34.8 612.9 625.1 294.3 39.2 1.0001 -16.8 -28.7 34.6 602.9 623.9 288.0 39.1 1.0001 -17.7 -29.5 34.4 593.1 622.0 287.1 40.5 1.0001 -18.7 -30.5 34.1 523.5 621.0 287.1 40.5 1.0001			25.	35.3		627.	5.462	38.0	.00014
15.8 -27.8 34.8 612.9 625.1 291.3 39.2 1.0001 16.8 -28.7 34.6 602.9 623.9 288.0 39.1 1.0001 1 -17.7 -29.5 34.4 593.1 622.0 287.1 40.5 1.0001 14 -18.7 -30.5 34.1 553.5 621.0 287.1 40.5 1.0001		·	56.	35.1		626.	0.467	39.1	.00014
16.8 728.7 34.6 602.9 623.9 288.0 39.1 1.0001 1 17.7 729.5 34.4 593.1 622.0 267.1 40.5 1.0001 14 18.7 730.5 34.1 553.5 621.0 267.9 41.5 1.0001 18.7 70.5 74.1 553.5 621.0 260.9 41.5 1.0001	_	2	27.	34.8		625	291.3	39.5	00014
18.7 -29.5 54.4 593.1 622.0 287.1 40.5 1.0001		•	28.	34.6	020	623.	288.0	6	00013
18.7 -130.5 34.1 563.5 621.6 280.9 41.5 1.0001	-	:	29.		9	622.	26/.1	0	0001
			000	·	10	621.	5.097		1000

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	MSL	MST
	1	Σ

GEODETIC COORDINATES 32.88865 LAT DEG 106.09965 LON DEG	SPEED OF KNOTS REFRACTION	1,0001	•	5 1.00012	3 1.00012	.5 1.00011	49.4 1.000117	1.00011	3 1.00011	53.2 1.000111	3 1.	1.		5 1.	58.2 1.000102	3 1.	8 1.			7	62.6 1.000092	5	2	-		3 1.00008	3	1.00008	75.5 1.000080	77.4 1.000078	79.9 1.000077	1.	1.00007	.3 1.	.5	.1 1.	_	•
	WIND DATA DIRECTION S DEGREES(TN) K	289.4	291-1	291.1	290.7	289.5	286.1	288.2	288.5	289.8	289∙€	288.9	289.4	290.6	291.8	295.1	292.4	8.067	288.8	286.8	236.3	280.1	290.6	287.2	263.1	289.1	5.067	292.3	294.0	295.8	297-1	297.1	297.0	290.0	290.1	295.6	595.6	
A 140	SPEED OF SOUND KNOTS	:0	616.9	3	5	614.1	612.		609	608.2	9.509	605.1	603.5	60109	600.4						590.9		587.7	580.0	7.07	562.2	560.0	578.4	577.2						569.8	568.4	565.9	
UPPER AIR DAT 1150010199 HOLLOMAN	DENSITY 6M/CUBIC METER	65,	557.2	2	537.7		0		V	h • 16 h	480.4	476.5	470.8	463.2		448.4	441.1	433.7	450.4	419.2	412.0	405.0	•	391.4	0.120	373.7	372.6		359.1	352.1	345.2	336.5	331.9	325.5	319.2	313.1	397.2	
2	REL . HUM. PERCENT	35.7	35.9	35.6	34.0	32.4	32.3	32.8	33.3	33.8	34.3	34.8	35.2	35.7	36.2	36.7	36.9	35.5	36.1	*	O	5	9	**6**														
. MSL	TEMPERATURE AIR DEWPOINT EGREES CENTIGRADE	-39.3	-33.2	-34.3	-35.3	-36.4	-37.4	-38.4	-39.4	-40.3	-41.3	-42.3	-43.3	-44.3	-45.3	-46.3	4.24-	-48.6	8.64-	52.	S		(1	-70.3														
26.59 FEET MS 1300 HRS MS1	TEMPE AIR DEGREES (-22.5		-24.0		-25.8	-27.0	-28.3	-29.5	-30.7	-32.0	-33.2	-34.4	-35.7	-36.9	-38.1	-39.4	9.04-	-41.8	-43.1	t · t t -	-42.6	6.94-	2.34-		-51.5	-52.7	-53.6	-54.5	-52.4	-56.3	-57.2	-58.1	-59.5		-61.4	
1170DE 41	PRESSURE MILLIBARS	409.3	401.0	392.8	384.7	376.8	368.8	361.0	353.4	345.9	338.5	331.3	324.3	317.4	310.7	304.1	297.6	291-1	284.7	278.3	272.1	266.0	200.0	2.402	C-2+2 .	245.0	237.2	231.7	259.5	550.9	215.7	210.7	205.7	200.9	195.0	191.5	180.1	
STATICH AL 25 APP. 79 ASCENSION	GEOMETRIC ALTITUDE MSL FEET	24000.0	24500.0	25000.0	25500.0	260000.0	26500.0	27000.0	27500.0	28000.0	23500.0	2900000	29500.0	3000000	33500.0	31000-0	31500.0	32000.0	22500	0.00000	33500.0	24000.0	34200.0	0.00000	0.00000	20000-0	36500.0	37000.0			38500.0	3900000	39500.0	4000000	40200.0	41000-0	41500.0	42000

STATION ALIITUDE 4126.59 FEET MSL 25 APR. 79 1300 HRS MST ASCENSION MO. 199

MANDATOPY LEVELS 1150016199 HOLLOMAN

GEODETIC COORDINATES 32-88865 LAT DEG 106-09965 LON DEG

WIND DATA DIRECTION SPEED DEGREES(IN) KNOTS	7.1	11.3	26.4 34.9	31.0	33.4	44.1	6.15	60.1	66.3	96.2	114.1	112.3	78.2
WI DIRECT DEGREES	286.6	327.8	294.7	277.0	296.7	291.3	288.0	293.1	287.9	296.0	295.5	594.8	294.7
REL . HUM. PERCENT	22.	35.	41.	37.	36.	37.	34.	37.					
TEMPERATURE R DEMPOINT RES CENTIGRADE	13.5	-5.1	-13.2	-18.0	-23.3	-33.0	-39.8	6.54-					
TEMPAIR DEGREES	22.0	15.1 6.9	1.6	-5.7	-11.2	-22.7	-28.8	-37.7	-47.8	-58.3	-64.3	8-69-	-69.5
PRESSURE GEOPOTENTIAL	4865.	10230	12217.	16589.	19010.	24521.	27704.	51250.	35293.	39997.	42715.	45768.	49334.
PRESSURE GE	850.0	700.0	650.0	550.0	500.0	400.0	350.0	300.0	250.0	200.0	175.0	150.0	125.0

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION. 29

STATION ALTITUDE 4126.59 FEET MSL 25 APR. 79 1300 HRS MST ASCENSION NO. 199

MRN MANDATORY LEVELS 1150010199 HOLLOMAN

6E0DETIC COORDINATES 32.88865 LAT DEG 106.09965 LON DEG

	PRESSURE	MILLIBARS	1.250+2	1.500+2	1.750+2	2.000+2	2.500+2	3.000+2	3.500+2	4.000+2	4.500+2	5.000+2	5.500+2	6.000+2	6.500+2	7.000+2	7.500+2	8.000+2	8.500+2
TEMPERATURE	AIR	0E6 C	-69.5	-69.8	-64.3	-58.3	-47.8	-37.7	-28.8	-22.7	-16.1	-11.2	-5.7	9	2.1	6.8	12.1	17.1	22.0
	DEW PT DEP	DEG C	66	66	66	56	66	60	11	11	12	77	12	13	15	14	17	50	23
WIND DATA	ع <u>د</u> ا ل	SAM	37.	52.	53.	. 11	34.	,00	.55.	.17	19.	15.	10.	10.	12.	· .		יי יי	.5
	S 1 2 2		-17.	-54.	-25.	-22.	-10.	-12.	.6-	-8-	-7-	-8-	-2.	1.	•0-	••	-5-	7	-1:
	SPELD	N N	40.	56.	59.	.61	34.	31.	27.	23.	20.	17.	10.	14.	14.	•	• •	3	;
	DIRECTION	טבפ נוא)	295.	295.	.565	. 297.	288.	293.	289.	291.	290.	297.	277.	267.	295.	316.	328.	323.	287.
GEOPCIENT, AL	ALTITUDE	DECAMETERS	1504.	1395.	1302.	1219.	1070.	953.	• ++0	747.	•099	580.	-905	437.	372.	312.	255.	200.	148.